

# Examining the Relationship Between Text-message Dependency and Psychological or Behavioural Symptoms from the Perspective of Self-perception Theory

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## Abstract

The widespread use of smartphones and online text messages for communication has influenced and changed the everyday lives of its users. Undoubtedly, smartphones can enhance and advance our working life and personal life to suit modern lifestyles. However, some of the smartphone users show overdependence on the smartphone's applications especially on mobile communications to share and receive immediate information either for their work or personal related matters. 'Text-message dependency' is a term used to refer to these users who use and rely so much on text messaging applications. This obsessive use of mobile communications can lead to numerous psychological and behavioural symptoms such as problematic addictions, obsessions, health risks and also produce negative social outcomes. The research concentrates to study the factors that contribute to text-message dependency and psychological or behavioural symptoms from the perspective of self-perception theory. The research is significant and important for the society and national development in several aspects; 1) educate the society about the risks of smartphone addiction, 2) provide guidelines and insight to the ministry of health and multimedia development, and 3) give awareness to the application developers on the future demand of smartphone applications that relates to behaviour control.

**keywords** –*Text message dependency, behavioural symptoms, self-perception theory, smartphone addiction*

## INTRODUCTION

As mobile phone use gained popularity, researchers began to study the ways in which people used this technology to communicate with others, and it rapidly became obvious that people were becoming dependent on their mobile phones. Text messaging is the most common means of communicating with people in social networks, with its use exceeding the use of face-to-face communications, emails and voice calls [1]. Some of the popular text messaging applications are Whatsapp, BBM, Beetalk, Wechat, and Telegraph. According to [2], people show overdependence on text message because of they use so much text messaging application in their work and personal life thus leads to text-message dependency. The state when people infer their own attitudes from their own behaviour is specified in self-perception theory [3]. [4] has proposed three factors of self-perception related to psychological or behavioral symptoms of text-message dependency which are excessive use, relationship maintenance and emotional reaction. These factors are derived from two elements in Big-five Personality Factors which are extraversion (excessive use) and neurotism (relationship maintenance and emotional reaction).

### ***Research Problem and Motivation***

According to [5], perception of excessive use, emotional reaction and relationship maintenance are the three factors that have been composed by self-perception of the text message dependency model. The excessive use of text message can be considered as a form of technological addiction by people with low self-esteem. When switching off their text message application, they will feel the psychological or behavioural symptom such as anxiety, sensitiveness, sleep disorders, insomnia, shivering and digestive problems [6]. Self-perception of emotional reaction on the other hand states that these people believe that if there is no reply from an individual that they had contacted through the text message, they are unable to live [6]. Self-perception of relationship maintenance explains that users will feel the difficulty in their social relationships if they do not constantly interact with each other [6].

An extrovert person is more likely to regard mobile communication as a good way to stay connected and interact closely with individuals who share similar interests or for certain purposes. Their focus is more towards external influence and concern with the opinions of other people which refers to social influence. Previous researchers have not yet investigated the effect of self-perception of social influence factor of text-message dependency towards psychological or behavioural symptoms. As this factor falls under extraversion category of Big-five personality, this factor is important to be investigated in this text-message dependency study.

### ***Research Questions***

The answer to the research questions will be based on an extended review and analysis of the self-perception theory.

1. What is the highest level of self-perception of text message dependency that contributes to psychological or behavioural symptoms from the perspective of self-perception theory?
2. What is the relationship between self-perception of text message dependency and psychological or behavioural symptoms?

### ***Research Objectives***

This conceptual paper is intended to:

1. identify the highest level of the self-perception of text message dependency that contributes to psychological or behavioural symptoms.
2. determine the relationship between self-perception of text message dependency and psychological or behavioural symptoms.

### ***Hypotheses***

The hypotheses developed for this research in order to support the research objectives are:

- H1: There is a significant relationship between self-perception of excessive use and psychological or behavioural symptoms.
- H2: There is a significant relationship between self-perception of social influence and psychological or behavioural symptoms.
- H3: There is a significant relationship between self-perception of relationship maintenance and psychological or behavioural symptoms.
- H4: There is a significant relationship between self-perception of emotional reaction and psychological or behavioural symptoms.

## ANALYSIS AND DISCUSSION OF THE LITERATURE

This section explores the self-perception of text-message dependency factors that influence the psychological or behavioural symptoms.

### *Text-Message Dependency*

Several past studies found people nowadays rely on text messaging to disseminate and share information [2]. Young people, in particular, have increased the frequency of social communication and expanded their opportunities for establishing social relationships [1]. They also stated that recent trends in worldwide communication technology use have seen a marked shift from personal computer-based communication to mobile or cellular phone communication, especially using text messages.

In addition, text messages are most frequently used by adolescents, a population that yearns to build close relationships and experiences strong anxiety in the face of potential communication failures [7]. While, [8] studied Japanese university students entering universities to find that greater importance of the text messages to precollege friends was associated with an increase in loneliness after entering into universities. [9] reported that for the first time in 2007, Americans sent more text messages than made mobile telephone calls. [10] define “phone dependency” is connected to the negative effects of mobile phone usage on adolescents. Previous studies have shown that phone usage patterns are associated with mobile phone dependency [1]. Some particular phone usage patterns significantly extend the hours of phone usage by individuals, which may lead to excessive mobile usage, whereas other usage patterns do not. Previous studies on phone dependency have suggested that

parent-child relationship is an important factor predicting children’s phone dependency [10].

### *Psychological/Behavioral Symptom*

Behavioural symptom relates to action or emotion, such as wandering, depression, anxiety, hostility, and sleep disturbances. Whereas, psychological syndrome is developed and progressed in response to chronic stresses in the workplace. Leaders with burnout commonly exhibit emotional exhaustion, detachment from the job, and reduced job performance and commitment [1][5].

One of the Psychological researches confirms that adolescents in Southeast Asia are experiencing harmful symptoms associated with technology addiction, including depression, suicidal tendencies, loneliness, compulsivity, social withdrawal, anxiety or depression, and social immaturity [11]. In addition, [12] reported that adolescents with phone dependency were more likely to be engaged in emotional or behavioural problems such as delinquency, aggressive behaviours, internalizing or externalizing problems, school adjustment or peer relations.

[13] surveyed 700 middle and high school students to investigate the effects of the mobile phone addiction on violence and concluded that mobile phone addiction was highly related to the tendency of behavioural or verbal aggression.

### *Self-Perception*

[14]states that self-perception represents the beliefs that one behaviours may contribute to an action that will create certain behaviour. New attitude will emerge if a person implements a behaviour which is more aggressive than is implied by his or her attitude. Previously, Bem [3] argued that the understanding of cognitive and emotions are a result of examining their own behaviours.

[3] offered self-perception theory as an alternative to cognitive dissonance theory, which examines interpersonal phenomena. Self-perception theory is based on two premises: internal reflection and emotions and the second part is the external reflection, such as situations or experience [3]. Hence, the study in [4] proposed that the individuals reflection on the three components of self perception; excessive use, relationship maintenance and emotional reaction when using text messaging are likely to influence their own behaviour in of both positive and negative ways.

### ***Excessive Use***

According to [4], heavy message users spend a substantial amount of time exchanging messages throughout the day and may perceive themselves as being too involved in text-messages without self-control. In terms of personality, a research in [24] found that extroverts are more likely to use computer media communication technology to interact with others to fulfill their unmet, offline social needs than their introverted counterparts. [25] reported the following symptoms occur due to excessive use of communication technology:

- A need to use the mobile phone more and more often in order to achieve the same desired effect.
- Preoccupation with smartphone use.
- Turns to mobile phone when experiencing unwanted feelings such as anxiety or depression.
- Excessive use characterized by loss of sense of time.
- Has put a relationship or job at risk due to excessive technology use.
- Tolerance: Need for newest messaging applications, or increased use.
- Withdrawal: The feel of anger, tension, depression, irritability, and restlessness when text-messaging application or network is unreachable.

### ***Relationship Maintenance***

According to a study by [18], smartphone dependency is positively correlated with neuroticism. Neuroticism is a dimension of normal personality indicating the general tendency to experience negative influence such as fear, sadness, embarrassment, anger, guilt and disgust [19]. Relationship maintenance is a communication behaviour used to ensure the continuation of value relationships by keeping them at a certain level of intimacy [16]. Relationship maintenance also is referring to repairing the relationship and it is to motivate people to engage in other pro-relationship behaviours over time [17]. Previous research has confirmed that text messaging is used as an alternative for face-to-face communication to maintain the relationship [4]. As we can see today, people have mobile phones with them all the time and use them to organize and manage every moment of their lives, from work to free time.

### ***Emotional Reaction***

A study done by [20] indicated that a person's personality trait does predict a person's emotional processs. The result of the study showed that neuroticism predicted higher negative and lower positive feelings. [23] stated that neuroticism is a correlate and predictor of mental and physical disorders. Thus, this study proposes that people who self-perceived as high dependent on text messaging and who are of high neuroticism personality, emotional reaction will manifest itself in psychological and behavioural symptoms.

### ***Social Influence***

Social influence theory claims that social influence brings about changes in attitude and actions, and that changes may occur at different levels [22]. In the context

of text-message dependency, the difference in the level of changes can be caused by the differences in the processes through which individuals accept influence. This is because the social influence can influence an individual's attitudes, beliefs and actions, towards text-message dependency.

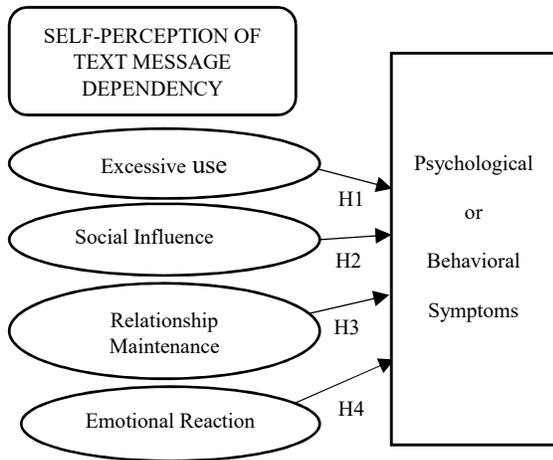


Fig 1: Conceptual Framework of the Self-perception of Text Message Dependency and Psychological or Behavioural Symptoms[22][5].

[11] study the conceptualization of different levels of social influence and reveal how the users' own beliefs and judgments also influence their commitment to engage with technology. Since self-perception derived from social influence is also vital to contribute to behavioural symptom, this factor will be investigated in this study. Figure 1 shows the conceptual framework for this research.

## METHODOLOGY

The research is based on some underlying assumptions about what constitutes a psychological behaviour due to text dependency. The content analysis technique is used to investigate the factors which are derived from the self-perception theory and social influence theory.

## RESEARCH CONTRIBUTION

Our main aim of this study is to address the relationship between self-perception of text-message dependency and psychological or behavioural symptoms particularly in the Malaysia study. This study will directly collect data from smartphone respondents with regards to their self perception of text message dependency and this study will look at their effect towards their psychological or behavioral symptom. The finding of this study also allows the smartphone users to realise several behavioural issues related to high dependency towards text message. In addition, this study will also provides empirical evidence regarding the use of text message among selected group of respondents. The outcome of this research will be beneficial to the society and the government of Malaysia to take proactive actions for a better and healthy digital environment.

## CONCLUSION

This conceptual paper presents an integrative theoretical framework to investigate and explain psychological changes as well as provide insightful perspectives to understand text-message dependency. The study examines the extravert and neurotic characters of mobile phone users as these personalities are expected to be important predictors of problem in mobile phone use.

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